

NINTH SERIES.

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Fall Treatment of Meadows.

Now that the hay is off from the meadows, the propriety of pasturing the aftermath may be discussed. There are conflicting opinions upon the question. Some farmers prefer and advise to pasture the aftermath closely, leaving no dead growth in the bottom to smother the young herbage in the spring and to clog the mower when cutting the next year's hay. Some persons who are not farmers and cannot take a practical view of this matter, and some who are, think it better to leave the aftermath as a protection to the sod against the winter's frosts and thaws. There are some things to be said on both sides, but the right course depends upon circumstances, which vary considerably. For our own part, we prefer to get all we can from the soil, believing that the earth is generous and sufficiently fruitful to give us freely all we can take. Moreover, having had experience with grass lands that have a thick aftermath left upon them, and realized the difficulty of cutting the hay the next season, we would even take extra pains to have the aftermath as closely eaten or mowed off as possible late in the season. We have found, too, that the dense dead grass provides harbors for mice, which burrow in the sod and make havoc with the grass roots. It also protects the sod from frost and thus permits the white grubs and other insect larvae to feed upon the roots, so much as to frequently cut off acres of sod loose from the soil and leave it as free as a carpet upon it. These injuries are so severe and so frequent upon meadows covered with dead aftermath that we should view with great apprehension the probable condition of the sod in the spring. But we have said that it depends upon circumstances whether the aftermath should be eaten or mown or not. Certainly, it depends upon the condition of the grass and upon the character of the soil. If the grass is a new seedling and the roots have not taken a firm hold upon the soil, the aftermath had better be left as a protection to them. If the soil is one that readily heaves with the frost and there is danger of injuring the sod by tearing the roots, the same course should be taken. If the meadow is thrifty and the sod firmly established, we would take off all the grass up to the latest period of the fall, but we would repay our draft upon it by giving back to it early in winter a liberal top-dressing of manure, or just now a dressing of plaster or fine manure, which would strengthen the roots and thicken the sod and make this an equivalent protection by its denseness, as the aftermath could be by its length. One other point should be noticed, which is, that if the grass is pastured it is indispensable that the droppings either of horses or cows should be broken up and evenly spread before the winter, to avoid their wasteful and unsightly effects upon the field the following year. When sheep are pastured this is not necessary, and where there is a choice of stocks to be used sheep will be found by far the best for the purpose. In fact, a farmer might do well to give away the aftermath of a meadow to any neighbor who would pasture it closely with a flock of sheep, for the sake of even clearing of it off and the return of fine manure the flock would make to the soil.—*N. Y. Times.*

North Carolina Wheat.

A novel exhibition was made in North Carolina this year, which was remarkable for a State which has been stigmatized as the "Rip Van Winkle" of the Union. It was a fair for the display of wheat samples and cattle, and the account in the Raleigh papers shows that that staid old State may be found to be among the very best wheat-producing regions of our country, and that she is capable of producing the grasses of every kind to enable her also to become equally successful in the raising of cattle. The *News* says: "The stock was very fine and the cereals and grasses made a display that could hardly be rivaled elsewhere. There were 128 varieties of grasses on exhibition. Of wheat there were 46 exhibitors. Some of the stalks of wheat were 5 feet ten inches high; samples very numerous; wheat beautifully cleaned and well sacked, grain full and plump. The exhibit represented the product of 200 acres, grown in various sections of the county and surrounding country. The average of these 200 acres, by measurement, is 31 bushels per acre. The largest yield is that of Mr. R. L. Cox, of Lodge, which raised 27 bushels, which produced 46 bushels per acre, manured with 200 pounds of fertilizer; next five acres, Geo. Mitchell, Winston, produced 40 bushels per acre, one sack fertilizer; Marshall & Dull, five acres, 30 bushels per acre, one sack fertilizer; Isaac Petree, one acre, 28 bushels, 200 pounds fertilizer; J. W. Spears, five acres, 25 bushels per acre, one sack fertilizer; J. P. & C. E. Crews, Winston, five acres, 24 bushels, one sack fertilizer; and several others, unfertilized, running from 12 to 20 bushels."

Of cattle there was a very good display, especially of Jerseys, Guernseys and Devons, also a number of fine horses. Governor Jarvis was present and delivered a brief address of a practical character calculated to arouse interest in agriculture. His presence, he said, was as the Governor of the Commonwealth, and he came at their bidding, not for any political purpose, but in the discharge of one of the highest duties of his office and prompted by the interest he felt in such occasions. He came to give an evidence of his cordial support to such enterprises as these, which these patriotic and progressive gentlemen had undertaken. He was gratified to see before him such a large number of intelligent farmers, called together for the purpose of being benefitted in the business of their life. He was in full sympathy with these movements; agriculture was the basis of all prosperity, but the agriculturists had too few means of contriving for the promotion of their objects and purposes and for the elevation of themselves and their business. These annual reunions ought to be extensively utilized in every community for the purpose of uniting all agricultural elements in efforts of improvement. This Forsyth fair has great capabilities, and the exhibit made to-day proves how varied and rich are the resources of this section. He rejoiced cordially in the prosperity of which he saw so many evidences around him. In

the State generally he witnessed great improvement and he was proud of it. We must march forward to the music of progress.

Although he had found great prosperity in every and all sections of our great State, he had found none more decided than here at this favored region. He spoke of the great improvement in the town of Winston, that had been so notable at each of his successive visits, and he rejoiced in this progress and prosperity. He would not undertake to instruct them in agriculture, but there were some thoughts he would like to recall to their remembrance. After some further observations he spoke of the manufacturing interest of the State, which he hoped to see fostered and developed. No State in the Union offered more facilities and advantages for manufacturing, and this was being recognized. Five years ago we had fifty cotton mills, with 1,800 looms and 100,000 spindles. To-day we have seventy cotton mills with 3,000 looms and 176,000 spindles.

The woolen interest had increased in like proportion; the same with other branches of manufacture. Again, the mineral development of North Carolina was far in excess of anything

of anything. He spoke of the great interest in these topics, and said he did not underrate them, but that candor compelled him to say that agriculture was more important to our people, and that our advance in agriculture had been still more gratifying. In 1870 we reported 145,000 bales of cotton; in 1880, 359,598. Since then we have raised 450,000. And the quality has increased as much as the quantity. Of tobacco we reported in 1870, 11,000,000 pounds, and in 1880, 27,000,000 pounds; so said the census. It was the same with corn and wheat. There had been a marked improvement in every department. The occupation of the agriculturist was the most honorable, independent and most conducive to happiness of all the employments of mankind. He who tills the soil which God made and converts the sunlight and dews of heaven into a bale of fleece or cotton or a sheaf of golden wheat, had obeyed the divine command, and, besides, had contributed to the wealth of the world.

Power and Variation of Plants.

(N. Y. AGRICULTURAL EXPERIMENT STATION.)

BULLETIN NO. LIX—SEPT. 5.

The power exerted by growth is something surprising. In the experiments by President Clark upon the squash, this fruit in growing was able to raise 4,125 pounds, and carried for ten days 5,000 pounds without injury. The frequent displacement of flagging stones, and the injury often done to pavements by the roots of shade trees, make it evident that growing roots of firm wood exert, under suitable conditions, a tremendous mechanical force.

The power exercised by an annual root is also exceedingly great, as shown in a case of a long blood beet planted at the Station, in an inch drain tile set upon end and buried in the soil. This drain tile was split length-

wise with the greatest ease as the root outgrew its accommodations.

One of the best roots planted out for seed has presented a novel feature in growth. Instead of throwing up a seed shoot it emitted branches from the root, and these branches coming to the surface, threw out leaves, thus forming a cluster of roots, which at date have grown as annuals, showing no tendency toward seeding.

We have this year among the beauty of Hebron potatoes, one plant which has developed tubers in abundance in the axils of its leaves. In one axil is to be seen a branch which has swollen in three places into tubers, in no wise appearing, externally, different from a normal tuber, save in the green color produced by exposure to the light.

In this case rust, or blight, has affected the leaves of the plant, and is also to be seen upon the tubers, thus affording rare opportunity of noting the progress of the rot upon the tuber. So far as a casual observation can extend the leaf blight and tuber blight affect both tuber and leaf in the same manner, and whatever differences are later observed are probably due to the difference in the structure of the affected parts rather than from any especial difference in the fungus growth.

In observing the many varieties of the potato planted side by side, we cannot but note the variations in habit of growth, habit of tuber formations, and resistance to blight, as apparently inherent in the variety. In some varieties the tendency in the tuber to appear above the surface is strongly marked, in other varieties the tubers remain below ground. Some varieties are already infested with leaf-blight while adjoining varieties are entirely free from it. It is at present too early in the season to offer conclusions, but it is probable that variety differences are to be considered in whatever directions we may have to offer relative to the growing of the potato as a field or garden crop. Thus in notes made upon 102 plantings, some 80 or more varieties, 3 at date show very much potato rot, 23 show much, 38 are scarcely suffering, and 43 are not as yet affected. It seems scarcely desirable at this early period of report to name the rot-resisting sorts, as this will be done far more effectively at a later date.

As this bulletin deals with variations, we may mention that one plant of a row of seed onions of the White Globe variety, has sported into a top-onion, the cluster of small bulbs replacing the normal flower formation. These little onions resemble the parent form in all but size, and the occurrence shows how new, and apparently divergent, varieties can at once appear.

A row of wild carrots, from seed gathered last fall, has yielded all annual instead of biennial plants. Rows of sorghum and salify, grown from seed collected from plants which were annuals last year, are furnishing annual plants this year, thus illustrating how easily and quickly the habits of some plants

can be changed through the art of selection. It is probable that a check to a biennial plant has a tendency to hasten the seed-bearing, and unpropitious circumstances may seem at times to almost change the nature of a plant through the shortening or obliterating of periods of growth. Yet while types may be disguised they can be usually recognized even through apparent changes, when carefully and intelligently sought after.

IL. LEWIS STURTEVANT, *Director.*

Changing Seed.

Many farmers of our acquaintance are accustomed to change the seed of their small grains, corn and potatoes, occasionally; more particularly that of grain and potatoes. We think it a good plan. Whether from careless habits of selection, or from being grown year after year upon the same soil and location, causes their deterioration, is not so clear, nevertheless a change of seed of the various grains and roots upon the farm is most always attended with beneficial results. Growing the same crop in one locality from the same seed, year after year, often tends to deterioration. It is said that the oat grown in the cool atmosphere and soil of Maine and New Hampshire is found to grow more luxuriantly when sown in the Middle and Western States, and uniformly turns out heavier weight to the bushel. If the same seed is sown year after year, in the latter States, without new importations, the produce per acre and weight per bushel gradually deteriorate.

The same rule is applicable to this grain and also rye imported from further South to the colder North, as we know from experience. The farmers of Bermuda always grow their potatoes from American seed, and in many sections of the South, Maine potatoes do duty as seed, by which our city markets are supplied with the early vegetables in advance of our own crops.

The farmers of England, who raise excellent cereals, roots and grasses, are very particular in the selection of seed, procuring it from a foreign country if possible. In the north of Ireland, where flax is grown extensively, a country renowned for its beautiful Irish linen, the farmers prefer seed brought from Russia or Holland, to that grown by themselves, as they find the change very beneficial.

Those conversant with the vast business of our seedsmen and florists, know that the finest bulbous and tuberous rooted plants are annually imported to this country from Holland and Germany.

While this is the existing state of things, and in view of all these facts, we are not prepared to say that if sufficient care was taken by our farmers in the growing and selecting of the grains and grasses to propagate from, far better results might be attained than are at present. Take corn, for instance. If the same system was pursued with that as with our small grains, the same fault of deterioration, would, we doubt not, be apparent. But no one thinks of going to his crib, to shovel up a basketful of corn indiscriminately, and shell it out for seed. The farmer carefully selects the best ears at husking time, and saves them by themselves from which to procure his seed the following season. And so the best is selected year after year, and instead of deteriorating, the corn crop is improved in earliness, productiveness and quality. What the same rules, applied to the small grains in the way of selection for seed, would do, doesn't seem to be so hard a conundrum.—*Leicester Journal.*

WHEN wet weather makes digging ditches impracticable, it is an excellent plan to mark where underdrains are needed. Unhappily on most farms failure of crops indicate the places plainly enough, and very often the crop that failed would have fully paid the expense in one year.—*Ex.*

Our Mineral Productions.

The chief of the Division of Mining Statistics, Technology and Geological Survey of the United States has just given some figures respecting the mineral production of this country during the year 1882 and the first six months of 1883. One may derive some idea of the extent of our mineral wealth from the fact that during the year 1882 the value of the metallic products was \$219,756,004, exclusive of the mining productions. This is a very large amount, and we can get an idea of the extent of our industry when the fact is revealed that not until the year 1882 did the value of our exports or imports reach that figure. Iron heads the list of the mineral productions in point of value, the spot value of pig iron for that year being \$106,330,420, and for the first six months of this year the value of the same was \$60,024,226. Silver stands next in the list in regard to value, its coinage value for 1882 being \$46,800,000. Gold once second and probably first in regard to value thirty years ago, is now third, its coinage value in 1882 being \$32,500,000. Copper is fourth in the list, with a value of \$16,088,001. Lead follows with a product valued at \$12,826,550; zinc, \$3,646,620; quicksilver, \$1,497,537. But coal constitutes the most valuable product of the mines, its value for 1882 being \$146,635,581, and for the first half of the present year \$69,025,236. Some of the other non-metallic products taken out of the bowels of the earth are lime, \$21,700,000; petroleum, \$28,704,698; salt, \$4,320,148; cement, \$3,572,750. The total value of non-metallic products in 1882 was \$226,156,402, which added to the metals makes an aggregate of \$445,912,406. Thus it appears that the subterranean wealth of this country is a large factor in our industrial greatness.

Improvement in the Management of Our Fairs.

We have often thought that the manner of making the stalls for horses and cattle at our Agricultural Exhibitions could be improved upon to the manifest gratification of all who attend them, and we are gratified to find a suggestion upon a branch of the subject is being brought before the managers of the Fairs of the West, by the influential editor of the *Breeders' Gazette*, who says:

"One of the needs of the hour in connection with all American shows of live stock, is better facilities for public inspection of the animals on exhibition. All fairgoers are cognizant of the difficulty of obtaining "a good look," especially in the horse and cattle classes. Stalls are either locked up tight, or animals are so covered with blankets as to render a satisfactory examination out of the question. Of course exhibitors have some rights in this regard which the public should respect, but there is something radically wrong in the system of fair management now in vogue. Except one be present at the time the various rings are being judged, it is next to impossible to form any conception of the character of the stock on exhibition. Why may we not copy with advantage from some of the trans-Atlantic shows? At the "Royal," for example, all the animals in the horse and cattle classes must be brought out each day and paraded around three or four times in front of the amphitheater, so that every visitor can get a good look at them. In addition to this, a sign is erected, which tells, plainly, just what class is being paraded; and then each animal wears its number on a large card suspended by a cord or ribbon from the neck. The bystander, catalogue in hand, can then turn to it and get all the information he may desire about the name, age, ownership, breeding, etc., of any animal about which he may desire to obtain such information. This is certainly a most desirable feature, and might readily be adopted

by both the Chicago and Kansas City Fat Stock Shows. There is ample time, after the closing of the entries, for the publication of a catalogue, and the sales of such a work would amply repay the outlay, to say nothing of the additional satisfaction which such a thing would give to visitors.

"During the writer's visit at "The Royal" Show at York, in July last, he was more impressed with the value of this cataloguing of the animals, and the daily parade, than with anything else connected with the management. It will be a long step in the right direction when our most important stock shows or fairs shall close their entries long enough in advance of the opening day to enable them to adopt this system. Our exhibitors could soon be educated up to it, and all will be pleased and interested by it. It would happen here, as in Great Britain, that animals will be catalogued which, from various causes, may not be shown; but this is only a trivial objection, compared with the great benefit to be derived from the publication of such a catalogue."

The recommendation thus made by the *Gazette*, was predicated upon the announcement made by the Kansas City (Kansas) *Indicator*, where a fat cattle show is to be held this fall also, as well as that at Chicago, that "an exhibition that will be well worth traveling a long distance to see will be the procession of about 600 thoroughbred cattle on the streets of Kansas City, on Thursday, November 1st, the opening day of the Fat-Stock Show. The breeders of polled cattle promise to furnish about 300 head of this unprecedented street parade." This is a step in the right direction.

Live Stock.

Fattening Cattle.

If it be the fall of the year it will be well to begin with the wastes of the farm. The pumpkins, squashes, small potatoes, turnips and even apples, if given in small quantities, may be utilized in this way to good advantage, not only because they are wastes of little value otherwise, but also because by loosening the bowels and quickening the secretions, they help to bring the cattle into a thrifty condition. If such food does not fatten, it is the best preparation for a course of fattening food. A single week of such food, with good hay, will make the animal look better, though it may not have gained a pound in weight. The giving of meal should begin from the first, and perhaps a good rule would be to use about thirty pounds of hay, fifty pounds of roots, and five quarts or ten pounds of meal for every thousand pounds of live weight. The proportion of the amount of food required to the live weight of the animal is not invariable, as the coarse, unthrifty, paunchy ox requires more to sustain life than such a one as described above would require to keep it fattening rapidly. Here the eye of the feeder needs to be trained again, and it needs to be on the alert to detect any symptoms of being over-fed or of a capacity to take more, and after a while the grain rations can be increased and the ration of hay can be reduced accordingly, the object in view all the time being to convert as much hay and grain into beef as can profitably be done.

To keep the cattle thriving it is important that they be kept comfortable and quiet. They will do better if kept in their stalls most of the time, if they have good beds, and the stables are well ventilated so as to furnish them pure air and at the right temperature—neither too warm in summer nor too cold in winter, though they will do better in a place comfortably cold. The stables should never be cold enough to allow the manure to freeze on the floor behind them, or water freeze in front of them. They should have pure water twice a day, though while eating the roots they will require but little, and it will be

better to feed the roots before offering the water, in order to induce them to get along with as little water as possible. Some feeders give no water while fattening on roots and pumpkins, but this seems cruel, and it is doubtful if the animals thrive as well as if allowed water. It is not well to give salt while fattening, unless with a view of creating thirst, which they will quench by eating more roots, or it may sometimes be added to the meal if they appear to have got a little "off their feed" by having been fed too liberally. But when they have been overfed the best remedy is a total withdrawing of the grain ration for one or two meals, and perhaps a little more exercise in the open air.

The manner of feeding is of equal importance. Adopt regular hours of giving food and do not vary from them, except that in the fall and winter the morning meal may be given at a later hour and the evening meal earlier as the days grow shorter, while as the days grow longer the hours for morning and evening feeding may be made farther from the noonday meal. Avoid as much as possible disturbing fattening animals after they have lain down at night. The practice of "feeding round" the last thing before going to bed is a bad one, for if the cattle have had a reasonable allowance at the usual supper hour, they do not need to be called up to eat again any more than the farmer himself needs it after he has retired for the night. Going to the barn to see that all is right there is well enough if the cattle are used to such visits, and do not associate them with the idea of being called up to eat or being driven up for any other purpose.—*American Agriculturist.*

Sending Cattle to the South.

It has been considered a risk to send cattle to the South from the more Northern States earlier in the year than October or November, on account of the danger from the climate. The prosperous condition of that section now, and the increased interest paid to live stock renders a warning in this connection not untimely, as it is probable that large purchases will be made of many classes of improved stock during the next year. In a communication to the *National Live-Stock Journal*, Mr. A. B. Allen refers to the subject as follows:

"As October and November are the most proper months for sending cattle to the South, I will here, for the benefit of all concerned, give a few directions, furnished me, in 1842, by the late Col. Wade Hampton, of Columbia, South Carolina—father of the present Gen. Wade Hampton, of the same place, and now United States Senator. He possessed a large plantation, and was a successful breeder of Shorthorn cattle, thoroughbred horses and fine sheep and swine. He says:

"All cattle imported from England and our Northern and Western States, are liable to be attacked by a fatal disease which I take to be inflammation of the brain. Cattle from eight to twelve months old are less subject to it than those more advanced in life. If they survive the following summer and autumn, I consider them safe, although special care should be taken of them the second season. They should be brought into the South as early in autumn as possible, kept in good growing condition through the winter, and in the spring be removed to a high, healthy position, have easy access to pure water, and their pasture as much shaded as the nature of the ground will admit. In August and September they should be kept in a cool stable during the heat of the day, and at night also, the dew at that season being almost as injurious as the intense heat of the sun. With these precautions, I think more than half would escape the disease, the first indication of which is usually a languid appearance of the animal, followed by the loss of appetite, short, quick breathing, with more or less fever, and not unfrequently accompanied with a cough. I have heretofore considered this disease incurable when once fully established."

To the above I will add, that as late as May and as early as September, I have found

it excessively hotter in lower Southern latitudes than in Columbia, so that in these it is not advisable to send cattle to arrive there earlier in the season than November, or later than February. In such latitudes, also, they ought to be housed from the last of April to the last of October, moderately fed with fresh-cut grass or clover, rye and oats, when in blossom, or at least before the grain becomes hardened at all, sweet Indian corn, or amber cane, or sorghum, as soon as tasseled, and give all the pure water they will drink, morning, noon and night, or still oftener when a spell of very hot weather prevails. Thus kept, the cattle cannot get at pernicious weeds or water, and by darkening their stables, they are freed from the sting of insects, which is often the cause of death.

The quick breathing, accompanied with fever, of which Col. Hampton speaks, is owing to the increased pulsation, which always attends the bovine species when transferred from a cool to a hot climate. It generally doubles, and remains so for some time after this change of location. I have been informed that hornless cattle endure a hot climate much better than those with horns; and in order to save the latter from the fever when attacked, the shockingly cruel remedy of sawing off the horns has been prescribed.

There are many very pretty Red Polled cattle in the lower part of Georgia, and I presume in other Southern States. If some young Norfolk or Suffolk Red Polled bulls could be imported from England to cross on these cows, a very fine progeny would be the result, for these are celebrated as being a *generally useful sort*, like Shorthorns, superior alike in the dairy and for the shambles. When executing orders for cattle to be sent from the North to the South, I invariably refuse to fill them, except during the season from last of September to the fore part of March, according to the climate there."

Food for Fattening Sheep.

The most economical and appropriate combination of food will depend upon cost of different foods in the locality. Nearly all the grains raised are healthy for sheep unground, except millet, and this is not economical, and probably not healthy; fed unground, because of its small size and hard husk, it is not masticated and is not digested, but mostly passes through the animal whole. Millet should be ground before feeding.

Rye, oats, barley, buckwheat, peas, beans, Indian corn, wheat, bran, shorts or middlings, and oil meal, are each and all good food for fattening sheep—but sheep should not be fattened upon a single food, as they are fond of variety, and will gain faster when allowed to have it. Sheep are so fond of succulent food, that they will pick over large fields, in open winter, trying to find it. They suffer when kept wholly on dry food for several months, and, for this reason, the last food mentioned, oil meal, should be provided in small quantity for them. It is not usually dearer, according to its feeding value, than other foods in the list. Linsced meal has a very soothing and healthful effect upon the digestive organs, and one and a half pounds to each sheep, per week, is worth all it costs as a promoter of health. It seems to have an effect similar to turnips, when sheep are upon dry food. Corn is too heating to be fed alone, but when fed with one-half pound of oil meal per day, it does not show any of its heating effects. Therefore, if corn is cheap, it may be the most economical to feed $1\frac{1}{2}$ lbs. corn with this small amount of oil meal. Bran and middlings are often very low in price, and when this is the case, and corn is also low, 1 lb. of middlings and 1 lb. of corn may be fed, or in equal parts by weight. As a single food for fattening, oats is probably

the best. The ten to twelve pounds of husk on oats per bushel, is what renders this food healthier than the more concentrated food, corn. This husk renders the whole porous in the stomach, and thus more easily saturated by the gastric juice. Besides, oats are a nitrogenous food, and supplies the animal wants for this element, but oats usually bear a proportionally higher price in market, and may often be too dear to feed.

The feeder cannot err in giving too great a variety in the food of sheep. The best ration we have ever known fed to fattening sheep was composed of equal parts by weight of oats, corn, peas, and millet, and to fifteen bushels of the mixture was added one bushel of flaxseed, and ground fine together. Each sheep was fed two pounds of this ground mixture with hay, and made a regular gain of three pounds each per week, besides growing an unusually fine staple of wool. This small amount of flaxseed is peculiarly soothing to the digestive organs.

It is a perfect preventive of all diseases caused by dry fodder. Such a ration as this may be considered quite impracticable upon a Nebraska winter corral; but since much of the food must, usually, be transported by rail or water, we would suggest that this ration, or something similar, may be compounded and ground at some milling centre, and then shipped to the place for use, costing no more than to ship the raw material.

Sheep may be fattened just as well on such a ration as this with straw for coarse fodder, requiring only a slight addition to the grain ration. When it happens that corn is fed alone as the grain food, it is well to put hay in the rack, and then spread the shelled corn on the top of the hay. The sheep will eat the corn as it falls down into the trough with the fine parts of the hay, and in eating the corn, will also eat hay with it; thus bringing the masticated corn into the stomach mixed with the fibrous hay, rendering it more porous for the easier action of the gastric juice. All ground feed at the winter corral will, of course, be fed dry.

We hope these suggestions may be of service to some of the winter feeders of sheep on the Far Western ranches.—*Nat. Live Stock Journal.*

Sheep Farming.

Despite the constant attention which is called to the value of sheep, not only as improvers of the land, but as profitable farm animals, for wool and mutton, there are many farmers who have never raised or kept a single sheep, though their farms are adapted to raising sheep largely and profitably. Why this is we cannot imagine, for facts and figures can be had by the score to prove the profitableness of sheep breeding, if necessary, and about the only drawback in many localities is the loss occasioned by dogs. Many a rough, wornout or neglected farm might be brought up rapidly and be made paying land, by breeding sheep thereon, as the manure from the sheep is one of the most enriching of manures, and is evenly, finely distributed. Of course they may not do this without being fed something besides what they can get in

the fields, yet this additional food works to the profit of the breeder in two ways—it not only insures good and profitable growth of flesh and wool, but it makes the manure richer and more valuable. Even poor farmers can give sheep a trial by commencing in a small way, and then, as means and experience are gained, the flocks can be gradually increased by purchases, though the natural increase from a small flock of sheep is by no means inconsiderable, if properly managed and cared for as they should be. Like any other stock, they must have good care and food to secure the greatest measure of profit.—*Farm and Garden.*

A French Chapter on the Pig.

From our Correspondent in Paris.

The pig is a truly singular quadruped by its shape and habits. It was introduced to the New World by the Spaniards, and is now at home in all climates. It is contented with anything, provided it be full; it is easily reared, and invaluable in country towns far away from supplies of fresh meat. The ancients and the Easterns hated the pig, and it is still rare in Asia. Moses it is surprised denounced the pig because the Jews, being an agricultural, a pastoral people, might neglect other domestic animals for the convenient pig. Others allege the pig was proscribed from a belief that its flesh engendered leprosy—a malady common to Egypt and Arabia, something akin to measles and trichine of to-day. Montesquieu thus defends such as a good local law. Saint Clement asserts Moses prohibited the pig because it destroyed grains and vegetables, consequences sharply felt in Palestine, where the soil is but little arable and only 4 or 5 inches deep.

The flesh of the pig does not differ from that of other animals, only if eaten in excess it produces indigestion and may induce contagious diseases. It is selected as the type of stupidity, which is not quite exact in presence of the many "learned pigs" on record. It will follow the person that feeds it: in Germany, when the herd arrives in the village to collect the pigs of subscribers to feed in the forests on mast, he rings a bell, on hearing which the animals arrive in a scamper and fall in. The pig defends its young ferociously, and when followed they run up to embrace the mother before selecting a teat. When the Duke of Lancaster laid siege to Rennes, Captain Lafont had only one sow left to feed the garrison, while the English army had quite a herd of hogs. At night the captain let down the drawbridge, and had the sow driven towards where the English pigs were parked: they heard her squeak, followed the cry, and 2,000 crossed the drawbridge, which was drawn up, and thus saved the garrison.

The variety of pigs depends on climate and food. In warm climates they are generally black as wild boars; in cold climates, white. The long-eared race is peculiar to Westphalia, a region celebrated for its hams. Brown pigs are considered as most liable to measles. In Italy the Parma pigs are in repute; they help to make the famous Boulogne sausages, they are black, short in legs, and run so rapidly up to fat as requiring to be raised up to be fed. The Normandy race is similar in these traits, only it is white. In the latter country the boar can serve at eight months, and is allowed to continue so till two years; 16 to 20 sows are allowed, which is excessive. At two years the boar becomes vicious, and so farmers break his tusks in the lower jaw. The sow preferred for breeding should have long sides and be of quiet habits. The pigs should be kept warm and clean, they will never fatten in dirt. In many styes a scratching post is erected and plenty of fresh water supplied. A little leaven is frequently placed in the trough, as pigs like the acid or fermented relish. Burned oats are given to

make the sow take the boar, and November to May is the season preferred for such. To prevent the mother from eating her progeny she is fed well a few days before farrowing, and her back sponged with aloe. The sow is allowed to breed at ten months till five years.

THE CROPS.—The outlook for farmers is not promising—save for potatoes. The harvest in course of completion will be less than last year by a fifth to a third; beets are running into leaf; the vintage will be more abundant than in 1882, though the oidium has appeared in Burgundy. As for the phylloxera nothing stops its march; the planting of American vine stocks is rapidly extending.

The Dairy.

Dairy Products in Baltimore County.

The specimens of butter offered in competition at the Timonium Fair were more numerous than usual, outnumbering those of last year five to one, and were noticeable for quality as well as quantity, which was the result in part of the wisdom and liberality of the managers in offering special premiums. And where was the garlic, so objectionable last year? In all the fifty exhibits, numbering more than an hundred pounds of butter, not a trace of garlic taste was to be found, except in one parcel, and that taint was very faint. Surely this is a long stride towards perfection, and should be a source of much gratification. In the class for children under 16 years of age, there were 14 entries, and many of them, if not all, would have reflected credit upon men and women. We would suggest to the management to specify that the rolls and prints should be made at the same time if they offer special premiums next year for this class. One of the successful competitors in this list would not have been so successful had this been one of the conditions at this show. In the class for butter of "a week old," the competition was very close, as might be expected where twenty-one very creditable parcels were offered, and fine discrimination had to be used; several of the specimens would have passed for very fresh butter; three of the specimens, however, distanced the rest, and there all the points—appearance, marketable worth, texture, color, fragrance and taste—had to be tested critically before a decision as to excellence could be arrived at. Two very good specimens, otherwise, had been churned too long or had been worked too much after they came from the churn, for they had a salve consistency and were without a clearly defined grain. Several specimens of fanciful shapes or forms of butter added to the beauty of the display, and suggested that a class should be opened for competition in that particular. Taken all in all, Baltimore county has never had such a fine display of butter at any exhibition, and the people will be proud of the exhibit of 1883.

E.

Training Heifers to Milk.

In the FARMER of August 1st is an article on the above subject, and the author says, "this is sometimes called 'breaking', but the term is too harsh," and then goes on to tell how to "break" a heifer. I "train" my heifers, commencing when they are very young, say a week old, and go through all the motions of milking, handling the udder, pulling the teats and rubbing the legs, and in fact "handling" her all over. The result is that when she drops her first calf she is thoroughly "broken." One of my heifers calved yesterday and I can milk her from either side or behind and she does not think it anything out of the usual order. I would suggest caution in pulling the teats of heifers before they calve, as there is danger of bringing them to milk before their time. Any one trying this plan will never have to "break" their heifers. A. L. CROSBY.

Rockland Farm, Baltimore Co.

Poultry Yard.

Poultry at Timonium.

Though the display was not a large one, yet the winning birds were excellent specimens. The 1st and 2d Light Brahma chicks were remarkably fine specimens, showing brilliant yellow legs, finely feathered, with good middle toe feathering, as called for by the new standard, excellent neck hackle. The birds were from the yards of Dr. Cairnes, of Baltimore county, recently purchased by the exhibitors. The Black Cochins were in excellence above the general average, and much the finest display of this variety yet shown at Timonium. The Brown Leghorns, especially young birds, were good. Whites, one coop only of No. 1 birds. Plymouth Rocks were the leading class, some grand specimens being exhibited. The winning birds shown by Mr. T. W. Hooper were very fine, with well-barred, clear and distinct plumage, brilliant yellow legs, free from black specks, and the chicks were uniform and good in size. Games and Hamburgs, did not equal former displays. The French breeds were not represented. The Bantam class was a good one, the premium birds first class. The 1st premium Pekin Ducks were an unusually fine pair. The pigeon display was not large but the birds exhibited were very fine, the fantails, having 34 and 36 feathers in tails and very stylish. All in all, the exhibition in this department was much above the average at agricultural shows. The society had the coops cleansed and whitewashed, and every care and attention was given the birds, much to the satisfaction of the exhibitors.

G. O. B.

Hen Pests.

If you expect to keep your fowls and their premises free from chicken lice, you must wage a constant warfare. The ounce of prevention, in the shape of a proper place for the fowls to wallow in, and an occasional whitewashing, and washing the perches with coal oil, is worth more than several pounds of cure after the lice once get a foothold on your fowls; but when they do get them, don't be discouraged, but go to work faithfully until they are exterminated.

The plan that I have given repeated and thorough trials—and that has never failed me—is to whitewash the inside of the houses every spring and fall, and once or twice during the summer; to fumigate occasionally with sulphur; to use coal oil freely, as a wash, about the perches, and on the bodies of the fowls; to use sulphur or tobacco stems in the nests, and to always keep a supply of road dust and ashes where the fowls can wallow at pleasure. After the dust has been in use a month or six weeks, the contents are emptied into a barrel and used to sprinkle on the platform, and the box is refilled with a fresh mixture of dust and ashes. Anoint the fowls every two weeks with a mixture compounded of five ounces of sweet oil, mixed with one ounce of sassafras oil, and applied with a sewing machine oil can. Carbolic powder is also an excellent remedy for lice on chickens, and to mix with the contents of a dust box.—*Fannie Field, in Prairie Farmer.*

FALL PRECAUTIONS.—Now is the time to commence operations to make the houses of the chickens comfortable previous to the fall storms. Fowls roosting in draughts are quite sure to contract that dread disease, the roup, and once started at this season of the year it will run through the entire flock. A good supply of dry road dust should be secured now for future use. The houses should be freshly white-washed and put in a thoroughly clean condition,—for if your birds commence winter with clean quarters and in good health, they will consume less food and have a good record in the egg basket. Good attention to fowls will prove a well-paying investment at this season of the year. Try it and be convinced.

G. O. B.

Horticulture.

Fruit Trees in Sod.

Ten years or more ago a small number of peach trees were planted here near the gardener's cottage. Most of these trees stood in a piece of ground which is annually cultivated in vegetables. A few others were destroyed some years ago in erecting a new greenhouse and around one tree left near the greenhouses the grass has been allowed to form a thick sod, which is kept mown during the summer. The trees which stood in the truck patch have all succumbed to yellows and borers. The tree standing in the sod has made a strong and healthy growth, and for five years has not failed to bear a full crop of fruit. The present year the crop is so heavy that the tree was damaged by breaking down of limbs, (which, of course, we ought not to have allowed, and would not if we could by any means make two men of oneself). This tree shows no signs of failing health, while the cultivated trees are all gone long ago. This is an isolated instance, but I have known hundreds of such, in different parts of the country, until I am satisfied that the continual plowing among peach trees, after they have come into full bearing, is one cause of their early decay. While the trees are young and have not occupied the soil with their roots I have no doubt that clear culture is necessary, but when the tops (and the roots run just as far) meet across the rows, or nearly so, the ground should be made smooth and all cultivation suspended. Then mow clean everything that grows among the trees, and top-dress them annually with manure from the barn-yard or with bone-dust, keep the worms cut out around the collar and keep the tops properly shortened in, and I believe that instead of being exhausted in eight or ten years the peach orchard will last for twenty-five. Just call to mind the oldest peach trees you remember and I will guarantee they stand in fertile, uncultivated soil. The more I observe the habits of all our fruit trees, the more I am convinced that all fruit trees of mature age ought to be kept in a short grass and annually manured. The best feeding roots of these trees are always the surface roots which are injured or destroyed in cultivating. The blight in the pear tree, as I have before insisted, is more frequent among trees that are cultivated than among those standing in sod. The fungus which blights the tops starts from the lacerated roots.

W. F. MASSEY.

Flower Garden Notes.

We have had a new sensation in Asters.—For many years the improved forms of China Asters have been a favorite flower, and we grew them on the Eastern Shore to much greater perfection than we had ever seen them here; that terrible pest, the black bug, was never seen there. The only way I have been able to get any Aster flowers here is to sow the seed very early, so as to have them come in bloom by August 1st; they will then be through their best bloom by the time the bugs come. I recollect growing, when a boy, the old single China Asters, from which all the present gorgeous varieties sprung and the present fashion for single composite flowers led me to think of the old single Asters, and knowing them to stand so long after cutting, I determined to get some seed if possible. For many years I have been buying the choicest seed to be had, with the usual result of getting an average of about a half dozen plants from a twenty-five cent paper of seed. This year we searched the catalogues for the old China Aster seed. The nearest approach we could find was "Asters, common mixed, 5 cents per packet." So we ordered the common mixed at five cents, and at the same time sent for some choice Dwarf

Chrysanthemum flowered at 25 cts. a paper. The five cent papers were large, full ones; the twenty-five cent paper had as usual about 25 seeds. The cheap seeds produced an average of about 100 plants per packet; the choice package produced just four plants. Now for the result. The four plants of the Dwarf Chrysanthemum variety are just what I bought them for, and are very fine, but the cheap seed, from which I only expected single flowers, have been a perfect surprise. Of course there are some single ones, and good ones too, but out of one of these five cent papers I have magnificent flowers of the Chrysanthemum flowered, Peony flowered, Betteridge's Quilled, tall sorts, dwarf sorts, and all sorts and colors, truly the most completely mixed seed I ever saw. Hereafter I shall always have plenty of Asters for cut-flower purposes without investing in the named sorts. The only difficulty is in the great variety of heights, which makes a bed of these plants look rough. I would not object to paying 25 cents a paper for the fine named sorts if the seed would germinate with any sort of certainty, but usually the higher the price the fewer plants one gets. I have several times bought Betteridge's Prize Asters in England at two shillings six pence a paper and paid postage on them to this country, only to get two or three plants out of a paper, while I got out of one of these 5 cent papers more Betteridge Asters than I ever had out of an imported packet. I have written so fully of these seed because, in most sorts of annuals, it is usually much best to buy the best to be had, even at a high price, but a careful person with some of these cheap Asters can soon select for himself choice separate varieties, without the expense and exasperation of failure with the more costly named sorts. For uniform bedding purposes, of course it is desirable to have them of one height, and this can soon be attained by carefully saving the seeds separately.

I am more than ever convinced of the value of Crotons for bedding purposes in our climate. We have bedded out this season about four hundred Crotons. They are mainly C. Interruptum, but we have also tried Queen Victoria, Challenger, McArthurii, Weismannii, Irregularis, Angustifolium, Ovifolium, Bismark and Variabilis. I consider Irregularis the best bedder; Variabilis and Interruptum next. These are also the easiest to grow.

We invested in some seed of the new single Dahlias this spring, but so far as we have yet seen them they are perfect frauds. Most of the flowers yet produced are inferior double ones—perhaps those yet to come may be better. What a beautiful flower for bedding purposes the Coreopsis would be if it only grew on plants ten or twelve feet high! It makes such a wealth of bloom that its slender stems tumble about in a way that destroys its usefulness as a bedder. For those who like Marigolds the Calendula Meteor will be a treasure. We saw it very fine at a rockery at the Botanic Gardens. W. F. MASSEY.

Hampton.

THE ANNUAL EXHIBITION of the Maryland Horticultural Society will be held September 25, 26, 27 and 28, in the Armory of the 5th Regiment, M. N. G., Baltimore.

"Early Cabbage."

Messrs. Editors American Farmer:

The market gardener is more certain of success of late years in the growing of early than late cabbages. This is owing in great part to their exemption from the attacks of insects and other enemies so numerous during the growth of summer and fall cabbage. They come in, however, for their full share of enemies which makes even the growing of early cabbage a risky business. The cut worm in several instances cleaned up entire patches in this section the past season, rendering it necessary to plant the ground in something else. Salt sown heavily upon the freshly prepared ground had no visible effect on the worms. As soon as the cut worms ceased, countless thousands of small black fleas swarmed in, sucking out what little vitality was left in the plants; those disappearing after a time made room for the common green cabbage worm, which happily were not in sufficient numbers to do much damage. A sprinkling of Cayenne pepper when the dew is on seems to be distasteful to them. Early cabbage, whatever may be said, have to run the gauntlet of all these dangers before getting in condition for market. Summer and fall cabbage are liable to attacks of the European butterfly that lays the eggs which produce the worms so destructive of late years, and which is more to be dreaded than all other enemies combined. One of the chief causes of the failure of so many cabbage fields lately is the difficulty of procuring good seed. Market gardeners have gotten out of the habit of saving their own seed and trust this important matter to strangers. The result is that not one lot of seed in three is reliable. For early cabbage I sow in hot bed about the 5th of February, taking care not to make the bed too hot, as they are apt to dry out or grow up spindly. I transplant to the open ground as early as the ground can be prepared in good order. If the plants are well hardened before the setting out, a hard freezing will do but little harm, provided the plants are set deeply, allowing no part of the stalk to be above ground. The preparation of the ground for early cabbage is a very important part. It can hardly be made too rich, and a liberal application of good ammoniated phosphates is a great help. On good land, cabbage may be raised with commercial fertilizers alone; one thousand pounds to the acre is none too much. A great essential is frequent workings with hoe and cultivator, once a week is none too often. Early Jersey Wakefield is one of the earliest and a sure leader. It is rather small, however. I have had best luck with Henderson's Early Summer and Newark Extra Early Flat Dutch, these are but a few days later and much larger; not over one plant in five hundred failed to head with me the past two seasons. I have never grown early cabbage by planting out in the fall, and am convinced that my custom of starting in a hot bed is best. Fall planted cabbage are apt to run to seed or winter kill, and are at best but little the earlier of the two.

Yours respectfully,
Harman's A. A. Co., Aug. 28. R. S. C.

Kitchen Garden Notes.

We usually try to get our whole planting of celery transplanted into beds, two or three inches apart, early in June. Plants thus treated lift with a large mass of fibrous roots, and when planted in their final quarters grow right off almost in spite of the weather. This season the pressure of other work prevented our transplanting our whole crop, and we tried Mr. Henderson's plan of shearing their tops and letting them stand where sown. We planted three beds of 1000 plants each just before the recent dry spell. The first bed was from those which had been transplanted once, and the others from plants that had been sheared twice in the seed bed.

They are all of the Boston Market variety, but no one would think so by looking at the beds, or would suppose they were the same variety. Not one of the transplanted plants died, while there were many vacancies to be re-planted among the sheared ones. It is fully worth all the trouble to transplant celery in spring. This is nothing new, but I simply want to recommend an old practice which is falling into disuse with many.

Since planting the three beds above mentioned we have planted nearly 2000 more in rows four feet apart. These we mean to only partly earth up, and will bury them the last of November in trenches made through the centre of raised beds four feet wide. In this way we can secure thorough drainage. I never succeeded well in keeping celery in underground trenches, as the New York gardeners do. Their method might do in sandy soil, but here it would be certain to rot.

Mr. Cole has not diagnosed the disease, if disease it be, in my tomato plants. It is not the disease known as "rot" in Anne Arundel. (We never had this disease on the E. S. where I grew over 50,000 plants a year.) The affected plants have not died, but have maintained a sickly existence and ripened fruit about the size of hulled walnuts. I still think the injury is due to the walnut tree roots, as no plants are affected outside of a circle about as far as the roots probably extend, but there are plants unaffected inside of this circle. Though I have had no personal experience with what Mr. C. knows as the "Rot," I am satisfied that it must be of fungoid origin, while my plants examined under a powerful microscope show no signs of fungus in any of its stages. In the same space where the tomatoes are planted are some young grape vines planted, 8 by 10 feet apart, and trained to stakes. There are a number of varieties of native grapes. The space within which the tomatoes are affected is planted with Concord vines, (the tomatoes between them, one row in the ten foot space). Now we all know that the Concord is one of our most vigorous vines, yet, within this space, where the tomatoes dwindle, the Concords have

made less growth than Delaware elsewhere (in the same plot), planted immediately beneath a large pear tree. Everything I can observe points to the exhaustion of the soil of elements needed by the grapes and tomatoes. Just what it is I hope yet to discover. While on the tomato subject I will say that for family use I have never seen a better tomato than Acme, but I am inclined to think that if I were gardening for market I should plant it very sparingly, as it is so liable to rot and crack. We recently had two days rain following a dry space. All my Acmes that were near ripe cracked badly, while Canada Victors are hardly affected. I have been for years growing and selecting Canada Victors until my strain as well deserves a distinct name as any other. I grow these to guard against being out of tomatoes at times when the Acme fails us, either by rotting or cracking. When there are plenty of Acmes the others lay around and decay, though they are thrice as productive and more handsome color than the Acme.

W. F. MASSEY.

Spring Bulbs.

After our long winter, when, for four or six months, according to the season, no vegetation has shown life, save the Pines and the Spruces and their congeners, we hail with delight the first green blades that shoot through the soil. On this account some of our little, hardy, native plants that give their blossoms as soon as we have a few warm days, deserve careful culture, and it is a pleasure to know that in many places they are garden treasures. The Snowdrop, and the Crocus, and the blue Periwinkle, how quickly they rejoice in the returning warmth! For a mass of bright, rich color in the garden in early spring the Tulip is our main depen-

dence, and it is worthy of all the attention its culture demands. For the best results annual replanting is necessary. To leave the bulbs in the ground in the same place from year to year is sure to result in diminished blooms until the semblance to their former selves is lost. The Tulip is best suited with a spot that is well drained and fully exposed to the sun, and a soil that is a fresh, substantial, friable mold containing some sand. It should be enriched by the addition of plenty of old cow manure well dug in. In forming a bed the surface should be raised several inches in the central part in order to prevent water standing on it in the winter season. The bulbs can be set about three inches in depth and from four to six inches apart, giving the taller varieties the greater distance. The latter part of September and through the month of October is the best time for planting. Before hard freezing occurs it is best to give the bed a light covering of litter or evergreen boughs, or leaves, which are better than anything else. The question arises, how shall we manage with the Tulips? The best to be done in these circumstances is to set plants in the spaces between the bulbs, which are allowed to remain until ripe, and are then lifted and placed in a dry, shady, airy corner, until they have parted with some of their moisture, then they can have dirt and the old skin removed from them, and be placed in paper bags, or in dry sand on a shelf in the cellar, to remain until planting time in autumn.

For winter and early spring sowing in the house, what are known as the Duc Van Thol and Single Early varieties are employed. These come into bloom in the shortest time, and are of a great variety of bright colors. Three or four bulbs should be placed in a six-inch pot, covering them with two or three inches of soil. As soon as potted, water and then set the pots away in the cellar, and cover them in order to prevent their drying out rapidly. After six or eight weeks they will have probably made plenty of roots, and then can be taken up and exposed to the light.

The Duc Van Thol, Tournesol and Single Early varieties are best to plant in beds, as they soonest mature.

The Late Show Tulips require a season somewhat longer, but they are of great beauty, both in form and colors, and are most prized by Tulip fanciers.

The general treatment of the Narcissus in the open ground is about the same as that of the Tulip. By reason of its fragrance, as well as its many beautiful varieties, and its free-blooming, it is quite desirable for home culture. The Jonquils are the most sweet-scented, and are favorites for potting on that account.

In potting Narcissus bulbs it is best to keep the neck or top of the bulb even with the surface of the soil; three or four bulbs can occupy a five or six-inch pot. With proper management the flowers can be had by the winter holidays. To do this the bulbs should be potted about the first of October, the pots set away in a cold-frame, or in some snug corner, and covered at least a foot deep with leaves, and be left for five or six weeks, when some of them will be started, and they can be removed to the house, but not into strong heat; a temperature of 60° will produce better flowers than a higher one. The Roman and the Paper Narcissus and the Jonquils should be selected for forcing. Narcissus bulbs flower quite freely in vases of water.

The varieties of Ixia are very beautiful and interesting. The bulbs are called half-hardy, and in this climate are only raised in the house, treating them the same as Narcissus. The flowers are from one to two inches in diameter and of many colors.—*Vick's Magazine*.

A new Clematis, Jackmani alba, has just been introduced, which promises to equal its parent, Jackmani, in all its good qualities.

AGRICULTURE IN THE SOUTH.

Progress in Agriculture—Is there any Room for Further Improvement?

BY TH. POLLARD,
Ex-Commissioner of Agriculture of Virginia.

Great progress has been made of late years in one important interest of agriculture in the South vitally concerning the farmer, viz: improvement in stock breeding. Virginia and other Southern States have for many years been paying attention to improved breeds of horses, but many of us can remember when one breed of cattle, and hogs, and sheep was considered about as good as another, and even now there are some who are skeptical about the advantages of improved stock and say that the "breed lies in the corn house," or in other words, in good feeding. To such persons it is only necessary, it would seem, to address the following proposition: Suppose an intelligent physician, understanding well human constitutions, their developments, their defects and their strong points, and knowing moreover the histories of families, their defects and inherited diseases as well as their reputation for robustness and longevity, were then to select the best specimens of men and women with whose antecedents they were acquainted for inter-marriage; then were to select from their progeny the best specimens and continual this process for a number of years, avoiding any close "in and in breeding" or continual relationship in marriage, who could doubt but what we should have a race physically superior to ordinary men and women: strong, robust and well-developed in all their parts? This is just what intelligent stock-raisers are now doing with their animals, and it is a source of gratification to know that we have in the South many breeders of first quality, judicious, liberal, capable and honest; men who are doing much to advance the great interest in which they are engaged. Still we have many farmers who do not appreciate the advantages of well-bred stock, and who go on in the old way of breeding from anything that is most convenient and cheapest. Where farmers cannot afford to purchase well-bred stock, it would cost them very little to club in and keep a good bull, a good ram and a good boar of improved blood from which to breed, taking care to select the best of the females from their flocks, and there are a sufficient number of good stallions which "stand" in all sections from which to select for service to mares. The male, particularly when he has been selected for his good points, transmits his qualities more strongly than the female, and by selecting even the best specimens of the female existing in the county, we should have distributed over the whole State stock greatly improved in value. While blooded horses have been the pride of Virginians, there are many who raise colts, breeding from the coarsest mares and coarsest stallions, particularly in the Piedmont, Mountain and Valley regions. These sections require heavier horses than the Middle and Tidewater sections, but still there should be some "blood" on one or the other side to secure a degree of activity and quickness of movement. This can be done without sacrificing the size by crossing large, well-bred stallions on good-size mares. The Percheron Norman horses and the Clydesdales are an acquisition, but we think they should be bred to moderate-size mares with some "blood" when designed for the farm.

Much progress has been made in agriculture in modern times by the use of commercial fertilizers. Indifferent and in some cases worthless fertilizers thrown on the market, too high prices charged frequently for even good fertilizers, unpropitious seasons, improper adaptations of fertilizers to particular soils and to special crops, and the failure to

follow the application of fertilizers with clover and the grasses are the principal causes which have induced many farmers to declare that "commercial fertilizers will not pay." On the other hand, we find the best farmers use these fertilizers and would not do without them. This is especially the case in the Piedmont and Valley sections of Virginia, in our trucking regions and in the cotton States where their use is annually increasing. Their use in the cotton States did not fairly commence until 1868. The largest crop of cotton before the war was in 1860—4,828,770 bales; in 1880, it was 5,737,307 bales, and in 1881 is estimated by Mr. Edward Atkinson at 6,250,000 bales. This increase is no doubt due to the use of commercial fertilizers, and this in despite of the unsettled condition of labor and the exodus of negroes from North Carolina and other States to Kansas. Three years ago the Commissioner of Agriculture of Georgia had inspected 95,000 tons of fertilizers introduced into that State, and now, no doubt, the amount is more than 100,000 tons. The cotton planters say one ton of a suitable fertilizer will produce four bales of cotton, and aver that they cannot get along without these fertilizers. North Carolina has been made a regular cotton State by their use, as they hasten maturity of the plant, and in all the State put it out of the way of frost by its early ripening. The "truckers" in Virginia declare they cannot do without these fertilizers, and their use is extending in all the trucking regions. Farmers who raise clover and the grasses recognize the importance of commercial fertilizers in enabling them to get a "stand" of these crops, and where peas are used as a green fallow, they are important in producing a good growth, particularly on thin lands. And here we may say that we think the farmers have been expending too much in purchasing nitrogenous fertilizers and have lost money in doing so, particularly in their application to wheat, which so frequently fails to produce paying crops, even under favorable circumstances, and most generally fails on thin, light lands. It has been found that clover and pea fallows will furnish nitrogen sufficient, and that fresh lands and any lands with much vegetable matter in them will do without nitrogen (ammonia), and it has been found that a mixture of fine ground South Carolina phosphate and kainit, not costing more than \$3.50 to \$4.50 per acre, will produce a good growth of peas even on thin lands, and these peas turned under will usually produce a good crop of wheat or winter oats, and that clover seeded in the following spring will generally be a success. Those who have tried it say that if wheat or oats are seeded in the peas without fallowing and run over with a clod-crushing roller, that this will be sufficient to get them in well, and that the falling vines will answer as a mulch, protecting them from freezes. Farmers have become convinced now that the supply of putrescent manures is too small to fertilize their crops and improve their lands, and that artificial fertilizers must be resorted to. Some say that they have found their lands to be improved faster by the latter than by the former, notably among them Dr. Nichols, who owns a highly-improved farm near Haverhill, Mass. He says on one of his fields he puts putrescent manures and on which he had previously been using superphosphate of lime, and that the production fell back in comparison with that obtained from the last. He prepared his superphosphate from bone and sulphuric acid mixed on his farm. The great and increasing use made of South Carolina phosphate in the preparation of fertilizers, as well as used alone dissolved and fine ground, is an evidence of the extent of the use of artificial fertilizers, which seem steadily on the increase. Science has lent much aid in testing the value of chemical fertilizers, and it is only in modern times that the chemist, by his analysis, has been very much furthering the cause of agriculture by determining how much of valuable material any fertilizer contains. We will resume this subject in our next.

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Liberal reductions will be made on larger advertisements. Advertisements to remain on outside page subject to special contract. Transient Advertisements payable in advance—all others quarterly. Advertisements should reach us by the 12th and 27th of the month, to secure insertion in the succeeding issue.

Subscribers who have minerals, ores, marls, fertilizing materials, or other substances, will be advised through our pages, by competent chemists, as to their composition, uses and value, by forwarding specimens to this office, *expressage or postage prepaid*. Questions as to application of chemical science to the practical arts will also be answered.

Persons desiring information or advice on diseases or injuries of domestic animals, will receive replies from a competent veterinary surgeon, by giving a plain statement of the symptoms, etc.

At the office of THE AMERICAN FARMER are located the offices of the following organizations, of each of which its proprietor, Wm. B. Sands, is secretary:

Maryland Horticultural Society.
Maryland Dairymen's Association.
Maryland State Grange, P. of H.
Agricultural Society of Baltimore Co.
Also, of the Maryland Poultry Club,
Thos. W. Hooper, Secretary.

BALTIMORE, SEPTEMBER 15, 1883.

The Baltimore County Fair.

The Fair at Timonium, September 4 to 7, was the most successful ever held there in the number, variety and excellence of the offerings, the large attendance and the general satisfaction which seemed to be felt by exhibitors and visitors. The weather was propitious, the arrangements well devised and well carried out.

In the cattle classes there was scarcely so large a show as last year. Jerseys predominated as usual, but a number of those who have heretofore taken the honors and the largest prizes of the Society abstained, unaccountably but apparently by concert, from exhibiting. Their defection was partly made up, however, by others who have not shown before, the herds of Messrs. Carroll, Matthews and Austen, containing some notably fine animals, which with those of Messrs. Robert Moore and John Ridgely, and one of handsome but unregistered animals of Miss Nisbet, made, with some added single specimens, a creditable showing in this section. There were, besides these, herds of Short-Horns, Herefords, Dutch Friesians, Ayrshires and some natives and crosses. The absence of the Polled Angus cattle of Mr. Whitridge was much regretted, those shown by him last year having by their comparative novelty here and their fine substance and form, created much interest. It was also a matter of disappointment that the beautiful and high-priced Jersey cattle of Mr. Samuel M. Shoemaker were not on show, they having been sent to the Fair of the New York State Agricultural Society at Rochester.

MARYLAND JERSEYS.—Mr. S. M. Shoemaker's Burnside Park Herd of Jerseys appears to have carried everything at the New York State Fair, including the gold medal for herd, first and second on cow, first on aged and yearling bulls, and first on heifer. St. Clementaise, the imported cow, of which a portrait was recently given in the FARMER, took first prize, beating Oxford Kate which took second.

The horse classes were all fairly represented, except Percherons, Mr. Walters not showing his fine specimens as heretofore. The sheep and swine pens were better filled than last year and poultry display was far larger than usual. The agricultural implement men evinced more than accustomed energy and presented a vast array of their several specialties and general collections, their enterprise meeting a reward in a large crowd of interested visitors and many sales.

Fruits and vegetables were numerous and good, better probably than any exhibition ever before made in the county, and the Household department contained more specimens by far of the taste and skill of the ladies than at any previous Fair at Timonium.

The attendance was larger than ever before and the receipts were very encouraging to the Society.

The awards on Jerseys, always a central point of interest at this Fair, made by Dr. Geo. A. Quinby, of Loudon county, Virginia, and Col. Amos E. Kapp, of Northumberland county, Pennsylvania, who performed their delicate and arduous duty with much patience and painstaking. The special Jersey herd prize was left unawarded by the judges, owing to a stringent condition which not only requires females that have been in milk to score 76 counts, and heifers not in milk 55 counts on the Jersey Cattle Club's scale of points, but also that the bull shall score fifty. Mr. Robert Moore's herd led the score, Mr. Ridgely's coming second.

In the sweepstakes for bull of either Channel Island breed, Mr. John Ridgely's bull King Rex carried off the honors over Mr. Vonkapff's Normanby 2d, Mr. T. C. Blair's Alroy 2d, Col. W. S. Franklin's Guernsey Ashland, Mr. Austen's Hercules of Chatsworth and Col. Matthews' Dulaney. Mr. Ridgely had added \$25 to the Society's prize of \$40. The same bull took first in his class, and Dulaney 2d. In bulls between two and three years, Hercules of Chatsworth got first and Mr. Vonkapff's Normanby 2d, second. In yearlings Mr. Robert Moore got 1st on Ion, and Mr. T. C. Blair second on Alroy 2d. On aged cows Mr. Robert Moore took both 1st and 2d on Maid of St. Mary's and Emegarde 6th. He and Col. Matthews tied on two-year old heifers and the two prizes were equally divided. The same gentleman carried off first and second respectively on yearlings, and Mr. Ridgely first on calves.

In the unregistered Jerseys, Miss Nisbet took the Herd and most of the other prizes.

Capt. E. Herman, manager of the Shepherd Asylum farm, took all the prizes in Short Horns; Mr. E. Gittings Merryman, those on Herefords; Dr. F. W. Patterson on Dutch Friesians, and G. Albert Mays on Ayreshires.

In the butter competition, referred to elsewhere in this issue, Miss M. Morgan took first on fresh roll, and E. A. Coskey second on that and first on roll two months old. On fresh butter in prints, F. Sanderson took first and Miss Morgan second.

Three pounds of roll and three of print butter made by a boy or girl under sixteen years were awarded—the first prize, \$20, went to Miss Florence W. Matthews (daughter of W. W. Matthews, a member of the Gunpowder Farmers' Club), and second, \$12, to Master Harry Greason. The special premium \$10, for best bound of butter in the fair one week old, went to Mrs. M. A. Worley.

MARYLAND JERSEYS.—Mr. S. M. Shoemaker's Burnside Park Herd of Jerseys appears to have carried everything at the New York State Fair, including the gold medal for herd, first and second on cow, first on aged and yearling bulls, and first on heifer. St. Clementaise, the imported cow, of which a portrait was recently given in the FARMER, took first prize, beating Oxford Kate which took second.

Death of Edward Stabler.

We had occasion a few weeks ago to announce the death of an old friend and contributor to the pages of the AMERICAN FARMER, Col. J. W. Ware, one of the best known and most excellent farmers of Virginia, and we have now the melancholy duty of chronicling the death of another of our ablest farmers and agricultural writers, EDWARD STABLER, of Montgomery county, Md., a personal friend of some forty or more years, whose death took place at Sandy Springs on the 4th of September in the 89th years of his age. Mr. Stabler has occupied the position of postmaster at his late residence for a half century, and, in addition to the duties pertaining to that office and his management of his farm, he was also engaged in the art of engraving; and in a biography published in the Baltimore *American*, it is stated that he had a decided talent for his calling, "and although entirely self-taught, he became very expert as an engraver, and built up a large and profitable business in this line. He had the presses for the seals and dies made in his own shop at Harewood—the die-sinking in cast-steel and seal-engraving in steel and bell-metal, all being done by his own hands. His seals and presses for State and city governments, corporations, courts of law—both State and county—were widely circulated throughout the country. He also furnished the various departments of the national government at Washington with seals, and made presses, and some of the seals for the United States consular agents all over the world. The steel dies for striking the gold and silver medals of the Maryland Institute were made by him some years since."

Mr. Stabler was perhaps best known in this and other of the Middle and Southern States as an agricultural writer, having received, some thirty years ago, the prize of \$50, offered by us for the best essay on the "Renovation of Worn-out Lands," which had a wide circulation, and was offered at a time in the history of our State when its agriculture was in a very low condition. Discussions had taken place in the pages of the AMERICAN FARMER between Cols. Capron and Carey and Messrs. Calvert and Roberts on subjects connected with that for which our prize was offered, and a great impetus was given to the improvement of the agriculture of a number of the old States by the practical teachings of these writers. His biographer says:

"Mr. Stabler, with very small means and in feeble health, commenced farming under the most adverse circumstances, but by strict economy and great industry and energy he brought what was once an utterly worn-out farm, as poor as any land in Maryland, to the highest state of cultivation. He is known as one of the most advanced agriculturists in this country, and his prize essays on the "Renovation of Worn-out Lands," also on "Under Draining" and "Drill Husbandry," and other topics, gave him national reputation. These papers were published in the *American Farmer* and extensively copied by the press throughout the country. The first prize for the "Best Essay on the Renovation of Worn-out Lands" was awarded to him by the publisher of the *American Farmer*—Samuel Sands, Esq.—in 1848, in competition with a number of distinguished Marylanders. The other two essays also drew the first prize offered by the Maryland State Agricultural Society—one in 1848 and the other subsequently. The first named essay was republished in the *American Farmer* within the past two years."

The death of his estimable wife, in May, 1882, was the first break by death in the family circle during a period of fifty-nine years. He left ten children—all of whom are now living—viz: Margaret S., married to James S. Hallowell, a prominent agriculturist near Brookville, Md., and formerly proprietor of the Alexandria (Va.) Female Seminary; Catharine and B. Gilpin, both unmarried, living at the old homestead; Phillip T., living near Sandy Spring, a well-known farmer and business man; Samuel J., an at-

torney-at-law, living in Yuba City, Cal.; Louis C., of Kansas City. The youngest, Arthur, lives at "Harewood," and farms the ancestral estate. Three of the sons reside in Baltimore—Alban G., formerly connected with the Baltimore and Ohio and Pennsylvania Railroads; Edward, Jr., the well-known coal merchant in the *Sun* Building, and Jordan, a leading grocer, corner of Eutaw and Madison streets.

Mr. Stabler was a member of the Society of Friends, as were his ancestors since 1880, as is shown by the record of the family. Mrs. Stabler's ancestors, the Gilpins and Thomas, have also been members of that religious denomination for the past two hundred years.

MESSRS. FRANKLIN DAVIS & CO's nurseries at Baltimore and Richmond are the largest in extent, with perhaps a single exception, of any in the country, so that a typographical error in their advertisement, which made the land in nursery stock one instead of four hundred acres greatly underrated their extent.

THE CHAIRS PEACH.—We were recently shown some very fine specimens of this fruit, advertised by Messrs. Wm. Corset and Son. They are a large sized, handsome yellow fleshed peach, and will extend the packing season. The trees are said to be very prolific.

AUTOBIOGRAPHY OF BENJAMIN HALLOWELL.—"Written at the request of his daughter, Caroline H. Miller, for his children and grandchildren; in the seventy-sixth year of his age." Published by The Friends' Book Association, Philadelphia, and to be had by addressing Miss Alice Hallowell, Brookeville, Montgomery Co., Md. Price \$1.65, which includes postage.

The relations of the writer of this autobiography to many still living were such as will render it to them a sacred volume, and it will be little less so to the descendants of his contemporaries with whom he was in any way associated. Wherever his name was known it was honored as that of a man of boundless sympathy, fine abilities and wonderful energy.

Although best known as an educator he stamped his name upon the history of his times as an eminent mathematician, a keen observer of public events, and an earnest mover in all that concerned the public welfare. Personal interests were always subservient to the call of duty, whether to his fellow-beings or to his country, and therefore his chief riches lay in his honored name.

The book is given to us in the plain language of the Society of which he was a member, and in the simple, unembellished style characteristic of the great and good man who wrote it. The lessons of steady persistence in what he conceived to be right, under any and all discouragements, and the strict rules of integrity which throughout kept him above temptation to swerve to the right or left therefrom, are unconsciously given in every chapter of his life. These are the "foot-prints" that made his life sublime, and which the men and boys of this or any other age will be the better for recognizing, and which will prove a richer heritage to his descendants than any amount of "filthy lucre."

Wool Growing.

An account of the wool industry published in America states that during the last four census years the number of sheep and production of wool were returned as follows:

Census years.	No. of Sheep.	Lbs. of Wool.
1850.....	31,728,220	52,516,900
1860.....	22,471,325	60,264,912
1870.....	28,477,951	100,103,367
1880.....	43,578,999	235,648,334

The increase in the number of sheep in the decade from 1850 to 1860 was only 748,056, equivalent to 83 per cent; but from 1860 to 1870 it amounted to 6,006,675, or 27 per cent.

Home Department.

Family Chronicles.

When representatives of former generations tell us tales of their youth they rarely fail to have interested listeners; indeed it is one of the special treats of children of every age to listen to their parents and grandparents' recitals of their habits and doings when they were young. And yet these interesting legends are very seldom preserved.

We doubtless think as we hear them uttered that our memories will hold that which so interests us for future use or entertainment, but so unreliable are the memories of most of us that much that we would regret to lose escapes us, and what is retained becomes more or less mixed, so that if we attempt to hand it down to another generation it becomes very unreliable history.

Had any one among our ancestry taken the pains to preserve to us some connected record of the family interests and connections, we would value it now beyond almost any volume money could procure; therefore we may know that any painstaking of that kind will be appreciated by our posterity.

How easily might this be done! In almost every family—certainly within the range of near relationship—there is one member who is more apt in such things than the rest; let him or her be distinguished as the family historian, and be provided with the requisite conveniences for keeping a clear and continuous record of all that transpires, whether it reflects special honor or otherwise, and of the variations in the ties of relationship by marriage—of the migrations to other parts of the world—of the manners and customs common to the age, and anything else which our interest in the past shows us might interest those to come. This should be open to the inspection and suggestions of all the circle of relations to be valuable and satisfactory, and the one who undertakes it should be made to feel that the work is appreciated in order to keep the interest from flagging.

Much that would enter into a record of this description will of course enter into the public records, but unless a lawsuit calls for it people seldom go to such records for information, and if they should it would puzzle even the historic "Philadelphia lawyer" to make it fit together; and what would such dry facts when gathered be compared with the same sandwiched into a narrative of consecutive events.

Let us then give to our children and grandchildren to the remotest generations what we so covet for ourselves, and for which we would be so grateful had it been provided for us in the past.

CERES.

How to Show Love for a Wife.

Show love for your wife and your admiration of her, not in nonsensical compliment; not in picking up her handkerchief, or her glove, or in carrying her fan; not, though you have the means, in hanging trinkets and baubles upon her; not in making yourself a fool by winking at, and seeming pleased with her foibles or follies or faults; but show them by acts of real goodness toward her; prove, by unequivocal deeds, the high value you set on her health, and life, and peace of mind; let your praise of her go to the full extent of her deserts, but let it be consistent with truth and with sense, and such as to convince her of your sincerity. He who is the flatterer of his wife only prepares her ears for the hyperbolical stuff of others. The kindest appellation that her Christian name affords is the best you can use, especially before her face. An everlasting "My dear" is but a sorry compensation for want of that sort of love that makes the husband cheerfully toil by day, break his rest by night, endure all sorts of hardships, if the life or health of his wife demand it. Let your deeds, and not your words, carry to her heart a daily and

hourly confirmation of the fact, that you value her health, and life, and happiness beyond all other things in the world; and let this be manifest to her, particularly at those times when life is always more or less in danger.—Selected.

A Large Yield of Wheat in Dorchester.

Danville, September, 1883.

Messrs. Davison & Co.

Gentlemen: When I was up to purchase my fertilizers you asked me to give a statement of how I prepared my land last year for wheat that I raised 50 bushels per acre. I flushed up 10 acres of stubble that I had raised 38 bushels per acre the year before with your fertilizer. The land is a yellow clay soil, after flushing I rolled and used cultivators on it, then sowed 200 pounds per acre of your "High Grade" Superphosphate broadcast, then drilled 1½ bushels wheat per acre, it is a new variety I got from the Patent Office three years ago, smooth head, red, long berry, as forward as the Pulse, and stand the winter better than any I have ever seeded. I grew 500 bushels on 10 acres. I think your fertilizer is the very thing for farmers in this section, the clover the largest I ever had.

Yours, &c.,

L. P. SKINNER.

Dailville, Dorchester Co., Md.

Ayer's Ague Cure not only affords immediate relief, but it eradicates the malarial poison which produces the disease, without leaving any injurious effect, as is the case with quinine and many of the ague medicines advertised. It is the only medicine in existence which may be considered an absolute antidote for fever and ague, and kindred diseases.

Ayer's Hair Vigor promotes the growth, and improves the beauty of the hair. It imparts an attractive appearance, a delightful and lasting perfume. While it stimulates the roots, cleanses the scalp, and adds elegance to luxuriance, its ingredients are harmless and its effects are enduring; and thus it proves itself to be at once the best and cheapest article for toilet use.

* * * * *

NEW PARLOR ORGAN ONLY \$35.00

Including Stool, Book, and Music, providing order is given and remittance made within seven days from date of this newspaper. **REGULAR PRICE \$65.00**, without Stool, Book, and Music. The PARIS, LONDON, and NEW YORK ORGAN is built expressly to supply every household throughout civilization with organs at popular prices. It is handsomely built, for the Parlor, Lodge, Church, or Sabbath School, and is an ornament for the parlor of the millionaire, workman, or the far away Western farmer, &c. **BRIEF DESCRIPTION.** New Style, No. 700. Height, 58 inches; Length, 41 inches; Depth, 22 inches; Weight, boxed, about 225 lbs.

FIFTEEN (15) USEFUL STOPS, NAMELY:

1. Powerful BOX SUB-BASS.
2. Double OCTAVE COUPLER, which doubles the power of the Organ; Couples Octaves Right and Left.
3. VOIX CELESTE, Opens set Three Octave Reeds, giving very charming, sweet, melodious tone.
4. FRENCH HORN, imitates a full Orchestra and Brass Band.
5. DIAPASON, Opens five full Octaves new and original "Paris" Reeds.
6. DULCIANA, Powerful Five Octaves Golden Reeds are introduced by this Stop. Tone, "London" Style.
7. VOX HUMANA, Tremulant. Which imitates by a FAN WHEEL the human voice.
8. SAXAPHONE, 2 Piccolo, 10 Mollion, 11 Clarionet, 12 Cello, 13 Vox Jubilante, 14 Clarabella, 15 Grand Organ Knee Stop. The last eight stops are operated in direct conjunction with above seven, bringing forth, at command of the performer, most charming music, with beautiful orchestral effects from a mere whisper, as it were, up to the full power of the Organ, or THUNDERING TONES, while using the full Organ must be heard to be appreciated.

Original Cabinet Organ contains FIVE SETS GOLDEN TONGUE REEDS as follows: 1st, Five (5) Octave Set Diapason or Paris Reeds. 2nd, Five (5) full Set Dulciana Reeds toned "London" style. 3d, Seven Voix Celeste Reeds of Three full Octaves. 4th, One (1) Full Octave Powerful Manual Boxed Sub-Bass Reeds. 5th, Two (2) Octaves or one each of Piccolo and Saxaphone Reeds, coming from above Set. 6th, Two (2) Octaves of Vox Humana, and one covering by Patent obtained at the UNITED STATES PATENT OFFICE. This beautiful Pianoforte upright Parlor or Cabinet Organ contains Five Full Octaves, One Manual or Keyboard, Handsome Walnut Case, Receptacle for Book and Sheet Music, Lamp Stands, Handles, Rollers, Treble Upright Bellows, immense power, Steel Springs, &c. Right Knee Swell, also Left Grand Organ Knee Swell, by which the full power of the Organ may be obtained at pleasure by use of the Knee Swell. Price \$35.00.

A MID-SUMMER OFFER.—I desire every home within the reach of civilization to possess one of my matchless Organs and to this end only I make this offer.

A \$65.00 Parlor Organ with Book, Stool and Music, complete, home \$35.00

delivered on Cars at Washington, New Jersey, FOR ONLY \$35.00

Providing Offer is accepted and order given within Seven Days from date of this Newspaper.

CLIP THE FOLLOWING NOTICE AND MAIL WITH ORDER.

No. 111. Upon receipt of this Notice from any reader of the AMERICAN FARMER.

together with only \$25.00 CASH, by P. O. Money Order, Registered Letter, Check or Bank Draft, mailed within the limited time as specified, I hereby agree to receive

same in full payment for one of my Beatty Organs, New Style, No. 700, &c. Money

refunded with interest at 6 per cent from date of your remittance, if not as

represented after one year's use.

Signed, DANIEL F. BEATTY.

Remember, to secure this GREAT BARGAIN, you should order at once before the limited time has expired. Nothing can be gained by long correspondence. My sole object is to sell my Organs at a sacrifice to introduce them to the market. Into every household throughout civilization, as soon and as quickly as possible, I will be able to offer the first instrument at a sacrifice to introduce, as every one sold so far has sold others. In one particular instance thirty sales, at \$65.00 each, have followed the first organ purchased. First Organ is shipped at \$25.00 as an advertisement. All I ask in return of you is to show the instrument to your circle of friends. The instrument speaks for itself, it sings its own praises. If you are unable to accept this Great Offer, write me your reason why. If you are in any doubt as to the value of some other organ and are not pleased with it, if so, dispose of it and order this. A friend of yours may desire an organ. Call their attention to this advertisement. If they are from home, mail this offer to them. If you can conveniently help me extend the sale of these Popular Instruments, I shall certainly appreciate your efforts. Shipments of Beatty's Organs, Church, Chapel, and Parlor (this does not include Beatty's Pianoforte), during the past seven months were as follows: December, 1882, 14; January, 1883, 14; February, 1883, 14; March, 1883, 14; April, 1883, 14; May, 1883, 14; June, 1883, 14; TOTAL, \$441.

If you are in need of an Organ, you should avail yourself of the above offer at once, as it will not be repeated. Let me hear from you anyway. (Bear in mind, that I will not deviate from the above offer.)

Address or Call upon the Manufacturer, DANIEL F. BEATTY, Washington, New Jersey.

Marvelous—How wonderfully popular J. M. Laroque's Anti-Bilious Bitters is with the people, and how quickly Dyspepsia, Headache, Constipation and all forms of Liver Disease yields to its influence. 25 cents a paper; \$1 a bottle. W. E. Thorn-ton Baltimore and Harrison Streets.

Rye.—The market is quiet and steady with better supply and fair inquiry. Sales 10 bushels choice Maryland at 67 cts., and 600 prime at 65 cts.

Provisions.—Speculative trading is dull and the market is irregular and generally lower. For job lots the local market is fairly active and steady. Packed lots from stores are quoted as follows: Bulk shoulder 7½ cts.; clear-rib sides, 8 cts. Bacon shoulders, 9 cts.; clear-rib sides, 9 cts. Ham—Sugar-cured, 15½@16 cts. Refined Lard, in tierces, 10½ cts. Mess Pork—New heavy, \$14.50 per bbl.

Butter.—Choice fresh stock is in quick demand, and the market is firm and higher under light receipts. Medium and low grades are dull and nominal. We quote choice New York State at 22@23 cts.; fresh Western choice at 18@20 cts.; do, good to prime at 14@16 cts., and near-by receipts at 16@18 cts. v. b.

Eggs.—The market is fairly active and firm at 21@22 cts. v. do., the latter for choice near-by stock.

FARMERS who are interested in
Growing Crops
cheaply and successfully
should write us for our pamphlet on pure
fertilizers. A good fertilizer can be made
at home for about \$12 a ton by composting
with POWELL'S PREPARED CHEMICALS.
References in Every State. Agents wanted
for unoccupied territory. Apply with references.

BROWN CHEMICAL CO.
Manufacturers of
Powell's Tip-Top Bone Fertilizer,
Bone, Potash, Ammonia, &c.
18 LIGHT STREET, BALTIMORE, MD.

For Sale--Fertilizers.

500 TONS HAIR MANURE,

Genuine Plant Food, the best and cheapest fertilizer in the market, at \$4 PER TON in bulk, at our Hair Factory, Frederick Road, Baltimore.

WILLIAM WILKINS & CO.,
300½ West Pratt Street.



ORDER IMMEDIATELY.

FRANKLIN DAVIS

EDW. H. BISSELL

BALTIMORE NURSERIES.

FRANKLIN DAVIS & CO.

400 Acres in Nursery Stock. 100 Acres in Orchards. 100 Acres in Small Fruits.

WE offer to our customers an immense stock of APPLES, PEACHES, CHERRIES, APRICOTS, GRAPES, &c., all the standard sorts. Also the new varieties of FRUITS, ORNAMENTAL TREES, SHRUBS, ROSES, &c. Wholesale and Retail. To dealers we can offer stock on favorable terms, and the best facilities for packing and shipping. Catalogues mailed on application.

FRANKLIN DAVIS & CO.

Office Cor. Baltimore and Paca Sts. (over People's Bank.) BALTIMORE, MD.

SAUL'S NURSERIES, WASHINGTON, D. C.

THE undersigned offers a fine stock of the following: New Pears, New Peaches, New Cherries, New Grapes, New Strawberries, &c. Fruit Trees of all kinds.

An extensive stock, viz: Plums, Cherries, Apricots, Apples, suitable to the South, &c. Grape Vines, Strawberries, Raspberries, &c., new sorts Evergreens, New Ornamental Trees, New Shrubs, &c., Small sizes, suitable for Nurserymen, as well as large stock in great variety.

DUTCH BULBS—Large importations direct from the leading growers in Holland. First quality Bulbs, Hyacinths, Lillies, Tulips, &c. New and rare Greenhouse Plants, Winter Blooming Plants.

NEW ROSES—Bennet's Hybrid Tea, Queen of Bedders, New French and English Roses, &c.

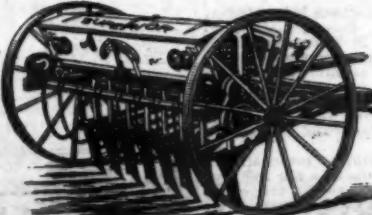
—Everything at low rates. Catalogues mailed to applicants.

JOHN SAUL, Washington, D. C.

THE SUPERIOR GRAIN DRILL

Greatly Improved for the Season of 1883.

No change of Gears.
No bunching of the Grain.



Simple, Strong, Durable.

The "SUPERIOR" will be furnished this Season with the "MARK'S FERTILIZER FORCE FEED," as well as our OLD RELIABLE FERTILIZER ATTACHMENT. The "SUPERIOR" is now offered to the public with

A Force Feed Grain Sower, A Force Feed Grass-Seed Sower, and A Force Feed Fertilizer Attachment.

And, from the reputation it has so justly earned, it is fully entitled to the name of "SUPERIOR." Send for Circular and Price List. We also have the Stover Corn and Cob Mill, the only Geared Sweep Mill in the Market. Also Buckeye Cider and Wine Mill and Agricultural Implements generally. Send for descriptive Circular and Price List.

J. C. DURBOROW & CO.,

35 LIGHT STREET, BALTIMORE, MD.

PEACH AND APPLE TREES.

10,000 first-class 2 and 3 year old APPLE TREES, in unbroken block, largely Smith, Cider and Ben Davis, at \$13 per 100.

50,000 PEACH TREES, 4 to 6 feet, \$30 per 1,000.

100,000 Extra strong 1 and 2 year old ASPARAGUS ROOTS.

All the best STRAWBERRY PLANTS, new and old popular varieties, Manchester, Night's Superb, James Vick, Legal Tender, Big Bob, etc., etc.

Large Stock Shade and Ornamental Trees. Send for Catalogue. M. E. ROGERS & SON, Mt. Holly, N. J.

FOR SALE—Pure South Down Ram Lambs and Sheeplings bred and from the Celebrated "Draud Hill Park" Flock. For particulars and Pedigrees, address,

W. H. GREENWAY,
No. 31 W. Biddle Street, Baltimore, Md.

Gould's Razor-Edge Butcher Knives

ARE Refined, Solidified and Tempered by an entirely NEW PROCESS. Every Knife is warranted to Whittle Hard-seasoned Hickory and retain an Edge that will take a hair or shave a man's beard with as much ease as a first-class Razor. Every Knife is Warranted to give entire Satisfaction, or the money paid for it will positively be returned. A Sample Knife sent by mail (Post-paid) for \$1. Hundreds of Testimonials with References, Price List, etc., free. AGENTS WANTED. Address,

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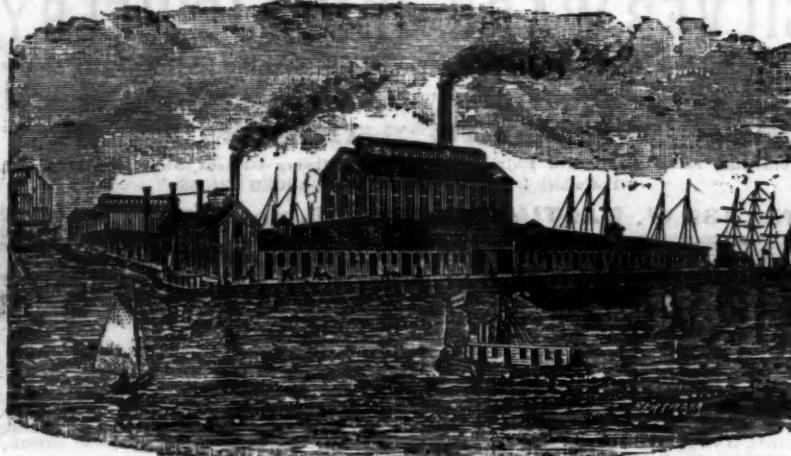
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